CLINICAL MEDICINE

ORIGINAL ARTICLES

COMPLETE TABLE OF CONTENTS ON ADVERTISING PAGE FOUR

HOW TO DO IT *without* MIRRORS

. . . WHEN PROLONGED DIETING BECOMES DULL

Of course she *wants* to be thinner, healthier and prettier, but sticking to the diet you prescribe m become very difficult after a time. When scales show she is cheating, you might prescribe Desoxy Hydrochloride to depress the appetite. Desoxyn may be used until a satisfactory weight is obtained, or new eating habits definitely established. • When not contraindicated, Desoxyn provides a simple, safe and effective curb for the appetite, and further aids in the therapeutic reducing program by producing a feeling of well-being and a desire for greater activity. A 2.5 mg. tablet two or three times a day before meals is usually enough in a reducing schedule. • In addition to prescription use in obesity, Desoxyn may be given in a wide variety of conditions where a stimulant for the central nervous system is required. Clinical tests show its effectiveness in smaller doses, with quicker onset, longer effect, fewer side-effects. For new literature, write to ABBOTT LABORATORIES, NORTH CHICAGO, ILLINOIS.

Desoxyn® *Hydrochloride*

(d-Desoxyephedrine Hydrochloride, Abbott)

TABLETS: 2.5 mg. and 5 mg. **ELIXIR:** 20 mg. per fluidounce **AMPOULES:** 20 mg. per

Announcing

MICROPELLETS PROGYNON

(aqueous suspension, alpha-estradiol)

a new departure in estrogen therapy

MICROPELLETS PROGYNON provide a unique and completely new technic for parenteral administration of pure alpha-estradiol. For the first time it has become possible to suspend the primary follicular hormone in the form of MICROPELLETS in normal saline. Prolonged and constant absorption from a semipermanent depot is established in the tissues by a simple intramuscular injection. Where injections of an oil solution are not feasible or desirable, a single injection of 1 mg. of MICROPELLETS PROGYNON may be substituted in order to achieve prolonged control.

MICROPELLETS PROGYNON offer economy in estrogen therapy while providing the complete safety and freedom from side effects inherent in natural hormones.

MICROPELLETS PROGYNON are available in multiple dose vials of 10 cc., each cubic centimeter containing 1 mg. of pure alpha-estradiol (12,000 R.U. or 120,000 I.U.). Boxes of 1 and 6 vials.

Schering

CORPORATION • BLOOMFIELD, NEW JERSEY

IN CANADA, SCHERING CORPORATION LIMITED, MONTREAL

Serving the *WEST COAST*. Schering Corporation
149 New Montgomery St., San Francisco 5, Calif. • Douglas 1544

MICROPELLETS PROGYNON

SCHERING

A NEW *Technique*

When pregnancy is contraindicated maximal protection is assured by the new Lanteen technique. The mechanical protection afforded by the Lanteen Flat Spring Diaphragm is combined with the spermatocidal activity of the Lanteen Vaginal Jelly.

Complete description of the NEW TECHNIQUE *and physician's package will be sent upon request.*

LANTEEN FLAT SPRING DIAPHRAGM

Easily Fitted—Collapsible in one plane only, Lanteen Flat Spring Diaphragm is easily placed without the aid of an inserter.

Long Lasting—Made of finest rubber, Lanteen Diaphragms are guaranteed against defects for a period of one year.

LANTEEN VAGINAL JELLY

More Effective—Lanteen Jelly gives greater protection by combining spermatocides in a jelly readily miscible with vaginal secretions.

Non-irritating, Non-toxic—Lanteen Vaginal Jelly is bland, safe, soothing and is rapidly destructive to spermatozoa.

***Ethically Promoted*—Advertised only to the medical profession.**

Lanteen

LANTEEN MEDICAL LABORATORIES, INC.
900 North Franklin Street
Chicago 10, Illinois

easy oral digitalization

S	M	T	W	T	F	S
C	◖	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
				24	25	26

SLOW
or
RAPID

Either slow or rapid digitalization is easily and safely achieved per os with Digoxin, a crystalline glycoside of Digitalis lanata.

SLOW DIGITALIZATION in one to three weeks: For office and ambulatory patients, digitalization can be achieved orally with 1 mgm. (4 'Tabloid' Digoxin) daily.

RAPID DIGITALIZATION in 18 to 24 hours: Initially, 1.5 mgm. (6 'Tabloid' Digoxin) followed each six hours by 0.25 to 0.75 mgm. (1 to 3 'Tabloid' Digoxin) until maximum response is obtained.

DIGITALIZATION IN A MATTER OF MINUTES: Intravenously, 0.75 mgm. Digoxin brings improvement within five to ten minutes, becoming maximal in one to two hours.

In addition to all the therapeutic virtues of digitalis leaf, Digoxin, because of its crystalline form, offers (1) accurate and easy control of dosage, (2) minimized local gastric irritation, (3) rapid elimination, (4) prompt and uniform absorption and (5) greater flexibility of maintenance.

ORAL PREPARATION:

'Tabloid' brand Digoxin, 0.25 mgm. (gr. 1/260 approx.) Bottles of 25, 100 and 500.

FOR INTRAVENOUS USE:

'Wellcome'* brand Digoxin Injection, 0.5 mgm. (gr. 1/130 approx.) in 1 cc. Boxes of 12 and 100 ampuls.

Formerly 'Hypoloid' brand

DIGOXIN

a crystalline glycoside of Digitalis lanata

BURROUGHS WELLCOME & CO. (U. S. A.) INC. TUCKAHOE 9, N. Y.

CLINICAL MEDICINE

A Journal Devoted to the Advancement of General Practice

Published Monthly by the
AMERICAN JOURNAL OF CLINICAL MEDICINE, INC.
307 West Washington Street, Waukegan, Illinois

GEORGE B. LAKE, *Publisher* RALPH L. GORRELL, M.D., *Editor*

CONTENTS

JULY, 1948—VOL. 55, NO. 7

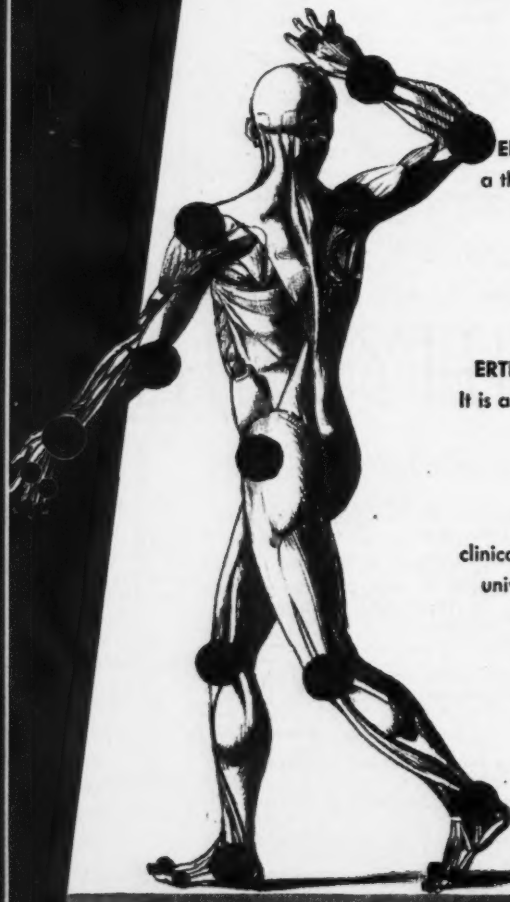
Original Articles

Graduate Course

Problems in Practice

Reentered as Second Class Matter October 19, 1940, at the Post Office at Waukegan, Ill., under Act of March 3, 1879. Additional entry as Second Class Matter August 1, 1942, at the Post Office at Wilmette, Ill.

ERTRON



What it is:

ERTRON (Steroid Complex, Whittier) is a therapeutic agent of proved value in the management of chronic arthritis, with significant arthrokinetic effect—improved mobility of arthritic joints—in many cases.

ERTRON is of unique chemical composition. It is a complex mixture of activation-products derived from electrical activation of heat vaporized ergosterol.

ERTRON is relatively safe judged by clinical investigations in leading hospitals and universities over a period of thirteen years.

ERTRON Capsules: Each capsule contains 5 mg. of activation-products biologically standardized having an antirachitic activity of fifty thousand U.S.P. units. Bottles of 50, 100 and 500 capsules.

THE MEDICAL DEPARTMENT OF NUTRITION RESEARCH LABORATORIES

in arthritis

What it is not:

ERTRON® is not a panacea or specific designed to supersede medical, surgical or physiotherapeutic measures of acknowledged merit.

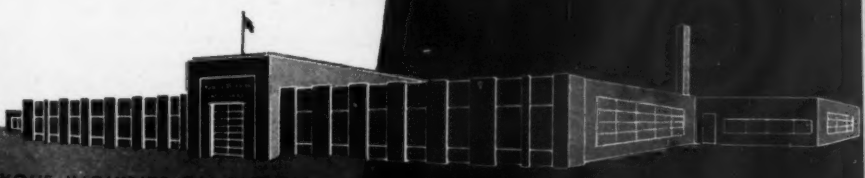
ERTRON is not to be confused with vitamin D products obtained by other methods (ultraviolet irradiation) or derived from other sources (fish liver oils).

ERTRON is not likely to produce serious untoward effects when administered under the physician's surveillance with proper observation of contraindications.

ERTRON Parenteral: Each ampule contains activation-products, in sesame oil, biologically standardized having an antirachitic activity of five hundred thousand U.S.P. units. Packages of six 1 cc. ampules.

Nutrition
Research
Laboratories

Chicago 30



...ES YOUR INQUIRIES ON ERTRON

CLINICAL MEDICINE

July, 1948

Volume 55, No. 7

ORIGINAL ARTICLES, NOTES, AND REPORTS:

Are solicited for publication with the understanding that they are contributed exclusively to this journal.

Material submitted may be forwarded to a Staff Consultant for discussion and if approved will be published as soon as space, timeliness, and appearance of previously accepted articles permit.

Manuscripts should be clearly typewritten, double spaced, with ample margins. Legends for illustrations, and bibliographic references should be at the end of the manuscript.

Illustrations drawn by our staff artist and engravings from photographs or sketches submitted, will be provided by the journal to the extent of moderate cost; selections to be made by the editor.

Reprints will be furnished according to the schedule of prices which will accompany the galley proofs submitted to the author. Reprint orders, payable in advance, should accompany the returned galley proofs. The printer will hold type for one month following original publications.

This journal is not responsible for opinions or statements expressed by authors in communications or papers which have been published.

ADDRESS CHANGES:

Notify us promptly of any change of address, mentioning both old and new addresses. We cannot hold ourselves responsible for change of address unless we are notified as above. Complaints more than three months old cannot be honored.

RENEWALS:

Expired subscriptions must be expressly renewed within six months. Renewal notices will be sent by mail. Kindly always renew promptly.

$5.00 A YEAR—50c A COPY

Please mention CLINICAL MEDICINE *when writing advertisers*

Coming Soon

ORIGINAL ARTICLES

to Appear in

CLINICAL MEDICINE

Sympathetic Control of the Blood Vessels of Human Skeletal Muscle
Technic of Low Cervical Cesarean Section
Roentgenologic Contours in Heart Disease
An Easy Exposure for Biliary Surgery
The Patient and His Disease
General Adaptation Syndrome and Diseases of Adaptation
Treatment of Anal Stenosis and Fissure in Children
Consideration of Systemic and Local Conditions Causing Deafness
Rheumatic Fibrositis
Sex, The Doctor's Dilemma
Relation of the Adrenals to Immunity
Clinical Application of the Male Sex Hormone
Therapy of Allergic States
Diagnostic Errors: A Symptomatic Tuberculosis
The General Practitioner's Approach to the Nervous Patient
Early Post-Operative Ambulation
Male Change of Life: Is It Necessary?
Psychosomatic Medicine: Its Importance in General Practice
Otitis Media
Shock
Folic Acid
Approach to Social Science Through General Practice
The Acute Abdomen: Simple X-ray Examination as a Diagnostic Aid
Surgical Concepts in the Treatment of Arthritis
Water: The Most Important Medicine
Treatment of Nasal Hemorrhage
Clinicopathologic Conferences

hot weather therapy in PSORIASIS

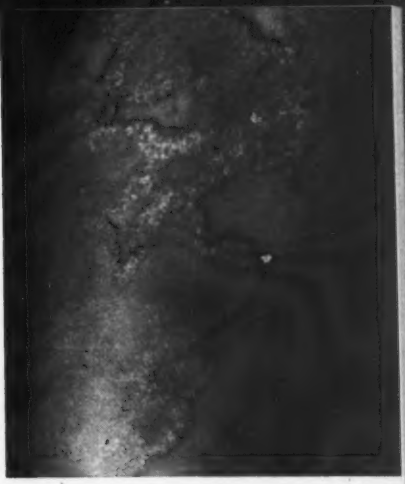
Psoriasis is a puzzling disease. Among its mysterious features is the fact that 25% of psoriasis sufferers fail to improve when summer comes, while 14% actually become worse.

It is no puzzle however, that RIASOL is as effective in summer as it is in winter.

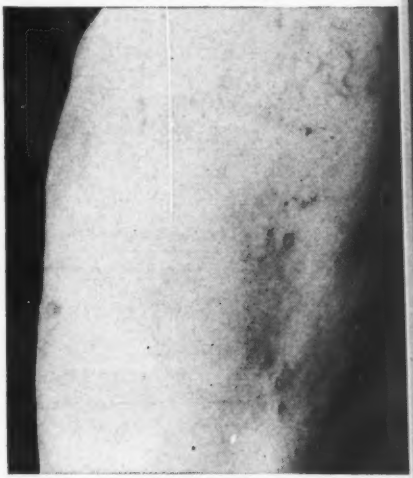
RIASOL contains 0.45% mercury chemically combined with soaps, 0.5% phenol and 0.75% cresol in a washable, non-staining, odorless vehicle.

Apply RIASOL daily after a mild soap bath and thorough drying. A thin, invisible, economical film suffices. No bandages needed. After one week, adjust to the patient's progress. RIASOL may be applied to any area, including face and scalp.

RIASOL is not publicly advertised. Supplied in 4 and 8 fld. oz. bottles, at pharmacies or direct.



Before Use of Riasol



After Use of Riasol

MAIL COUPON TODAY—PROVE RIASOL YOURSELF

CM-7-48

SHIELD LABORATORIES
8751 Grand River Ave., Detroit 4, Mich.

Please send me literature and generous clinical package of RIASOL.

..... M.D..... Street

City ..... Zone..... State.....

Druggist ..... Address.....

RIASOL for PSORIASIS

SOPRONOL LIQUID FOR OFFICE TREATMENT

Nature has its own defense against the invasive fungi involved in dermatophytosis—the fatty acids which occur in human sweat, which include propionic and caprylic.

Sopronol Improved is therapeutically effective because it contains propionates and caprylates. Sopronol is based upon Nature's own healing processes.

And Sopronol is virtually non-irritating, non-keratolytic, non-sensitizing. It is mild and safe.

OINTMENT
FOR DIRECT APPLICATION

Sodium propionate	12.3%
Propionic acid	2.7%
Sodium caprylate	10%
Zinc caprylate	5%

1 oz. tubes

DUSTING POWDER
FOR SOCKS AND SHOES

Calcium propionate	15%
Zinc propionate	5%
Propionic acid	0.25%
Zinc caprylate	5%

2 and 5 oz. canisters

LIQUID
FOR DIRECT APPLICATION

Sodium propionate	12.3%
Propionic acid	2.7%
Sodium caprylate	10%

2 oz. bottles

SOPRONOL®

IMPROVED

propionate-caprylate compound

Wyeth

PHILADELPHIA 3, PA.

The Treatment of Headache With Sodium Nicotinate

By MARCUS T. BLOCK, M.D.
Newark, New Jersey

HEADACHE occurs in many clinical conditions. Its character varies widely depending upon the etiologic factors responsible. It is generally recognized that the most successful treatment of headache involves the discovery of the underlying cause, if possible, with its subsequent removal. Unfortunately, in many instances, this is not possible, particularly in headaches of the migraine type.

Butler and Thomas (1) divide migraine into 3 stages: A pre-headache period due to vaso-constriction of the internal carotid arteries; a second stage with vaso-dilation; and a third stage with stretching of the meninges and the dura mater and edema of the walls of the blood vessels and pressure on pain carrying nerves. They state that vaso-dilators are said to be of value in the treatment of the first stage.

Goldzieher and Popkin (2) have used sodium nicotinate, given intravenously, in the treatment of 100 patients with headaches of varying types including those with migraine, headache following spinal tap and the headaches of hypertension and sinusitus. In more than half of the patients the headaches were designated as idiopathic. They pointed out that the degree of relief from headache was apparently correlated with the amount of peripheral flush resulting from the injection of sodium nicotinate.

Because of the numerous reports on the treatment of certain types of headache with the sodium salt of niacin* (Faronate), a study was undertaken employing sodium nicotinate in an attempt to determine whether or not smaller doses than those generally employed might not be employed with equally efficacious results.

Types of Headaches

In the relief of migraine type headache, I wish to discuss the treatment from the standpoint of the busy therapeutic practitioner in his private practice, and to call attention to a new form of therapy, not generally known, which in my experience, has been of incalculable value for rapid and lasting relief. My series includes thirty-five patients and for convenience, I have divided the headache into clinical type etiology.

The symptoms are those of a typical hemicrania with pain radiating from the occiput to the forehead. Bilateral, temporal and frontal pain is also included. These are associated with—

(1) Menstruation and menopause
(2) Gastro-intertinal symptoms
(3) Spasm of the muscles of the neck
(4) Post Cerebral Concussion Syndrome
(5) Urticaria
(6) Idiopathic migraine
(7) Pathologic lesions involving the sinuses; the mastoids and intracranial tumors and abscesses.

Headaches of menstruation and menopause respond in general to the estrogenic hormone, best given for rapid results by intramuscular injection, and in cases quite often resistant to the injection of ergotamine tartrate, followed by oral use of this drug.

Those headaches associated with muscle spasm of the neck are relieved

* The sodium nicotinate was supplied by Farnsworth Laboratories-Faronate.

quite readily by the injection of a local anesthetic, e.g. Formo-Quinocaine, in the spastic region, as in the Sterno mastoid or Rhomboid muscles.

It is quite another matter, however, when these methods fail or when the headache is associated with groups 2 to 7.

In 1946, I had the opportunity of using Sodium Nicotinate (100 mg.) intravenously, and was impressed immediately by the rapid relief given to all the above types of headaches except for classification 7; and even in these patients, some felt a certain amount of relief. However, after two very serious side reactions in which one patient, Mrs. J. S. collapsed, and was in very severe distress, turning cyanotic for 8 hours, I discontinued using the drug.

In fact, the reactions were so serious, that further treatment with the 100 mg. intravenous doses were discontinued. However, the value of sodium nicotinate in the treatment of headache had been well established and I started to employ a minimum dose rather than a maximum dose, in this manner attempting to secure the therapeutic benefit, and if possible to eliminate the side reactions.

At this time, I employed the sodium salt of niacin (Faronate) 10 mg. administered intramuscularly. Among the very early patients treated for migraine, were three persons who also were suffering from a resistant urticaria. These patients not only had complete relief from their migraine headaches, but the urticaria also disappeared as their treatment progressed.

Method of Treatment of Headaches

The dosage employed in most cases was 10 mg. of sodium nicotinate (Faronate) given intramuscularly twice a week, the number of doses varying from 1 to 6. No patient received more than 6 injections and 2 of those who received 6 injections obtained no relief. An attempt was made to eliminate psychologic factors as they related to the treatment. The patients were not informed as to the reasons for the injections until the amount of relief obtained had been ascertained.

Results

In 25 of the patients complete relief from the headaches resulted following four injections or two weeks treatment. In three, complete relief was obtained with six injections. In the five remaining cases there was incomplete relief, while in two, as mentioned previously, the treatment had no noticeable effect. The best results were obtained in the patients with post-concussion syndrome. Of six patients in this group all were completely relieved with three injections. Similar results were obtained in three patients who had both urticaria and migraine.

It is of great interest that in no instance were there any side reactions, such as flushing, or a feeling of heat. This may be explained in part by the smaller dosages employed, administered intramuscularly, with its slower rate of absorption, and prolonged effect. In most previous studies almost massive doses of nicotinic acid preparations have been used, and in most instances they have been administered intravenously.

Since the sodium nicotinate in my series was given intramuscularly, it exerted a more prolonged therapeutic effect, also this slower absorption appeared to guard against recurrence. Evidently only a limited number of injections are required to produce the desired effects in cases properly selected for treatment.

Comment

Becker (3) had employed sodium nicotinate by intramuscular injection in the treatment of headaches of numerous types, migraine, post-operative and vascular. He too, has noticed that with 10 mg. dosages prompt relief is obtained within 30 minutes except in

those headaches originating from intracranial pathology. In his cases no moderate or severe reactions were noted although in a few instances there was mild flushing.

Although the intramuscular injections of sodium nicotinate are usually given every three or four days it has been observed that they may be administered every day or even twice a day, if necessary. However, relief is usually obtained with the first injection. Subsequent administration of the preparation twice a week until five to eight injections have been administered seem to prevent the recurrence of headache.

Summary and Conclusions

(1). The effects of sodium nicotinate given intramuscularly in 10 mg. dosages have been studied in thirty-five patients with headaches of varying types. Twenty-five obtained complete relief with four injections and three with six. Five patients obtained amelioration of their symptoms while two were not effected.

(2). Side reactions such as peripheral flushing and a feeling of heat did not occur with 10 mg. doses of sodium nicotinate given intramuscularly.

(3). The use of sodium salt of niacin in 10 mg. doses given intramuscularly is recommended for the treatment of headaches not due to intracranial pathology and, particularly, those of the idiopathic type.

177 Bloomfield Ave.
Newark 4, N. J.

REFERENCES

(1) *J.A.M.A.*, Dec. 13, 1947, p. 967.
(2) *J.A.M.A.*, May 11, 1946, p. 103
(3) Becker, Charles; Chicago, Illinois, Perconal Communication.

Diagnostic Error

A WOMAN of 54 had been vomiting for 1 week despite medication by the local physician. All food had been vomited but some water had been retained. She had no abdominal pain or other symptoms. Several small bowel movements had occurred. Her previous health had been perfect.

Examination

General physical examination was negative, as was urinalysis and blood count. The flat abdominal x-ray was not indicative. A midline lower abdominal incision was made, on the presumptive diagnosis of intestinal obstruction, cause unknown. As the abdomen was being prepared, the surgeon sleepily noted that the right groin was a little more full than the left.

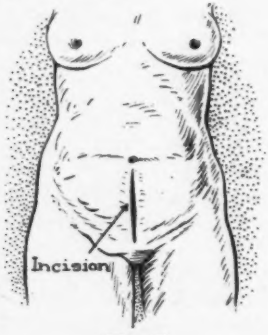
(Fig. 1)

Physical Signs (Fig. 1)

The abdomen was fat and slightly distended. The diagnosis can be made by inspection of the abdomen alone. What is it?

What Was Found (Fig. 2)

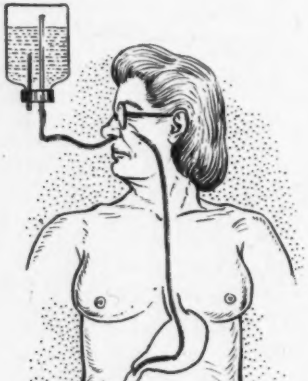
A distended loop of bowel led into the right femoral ring, and a collapsed loop left the ring. Gentle traction brought out a black, gangrenous loop of intestine. A right ovarian cyst was also found. The upper loop of bowel was not markedly distended.



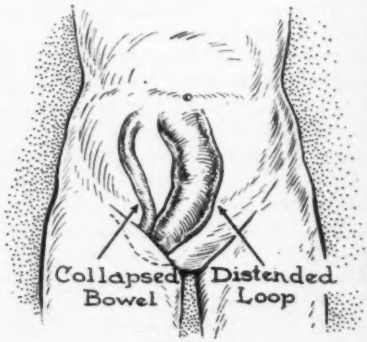
(Fig. 2)

What Was Done

The gangrenous bowel was resected and an end-to-end anastomosis performed. The patient had not responded well to intravenous liquids prior to the operation. She died 6 hours after the operation.



(Fig. 4)



(Fig. 3)

What Should Have Been Done (Figs. 4 and 5)

A long intestinal tube such as a Miller-Abbott tube should have been inserted through the nose and constant suction applied. An incision should have been made in the right groin, through skin and fascia into the bowel wall, relieving the obstruction and permitting the highly infective material to escape to the outside. Later bowel anastomosis could have been performed. (Technic of W. D. GANTCH of Indiana University School of Medicine, as illustrated in *Clinical Medicine* 54:60 (Feb.) 1947.

(Fig. 5)

Premature Closure of the Cranial Sutures

By DONALD R. SIMMONS, M.D.
Division of Neurosurgery, University of Minnesota Medical School, Minneapolis, Minnesota

PREMATURE closure of the sutures of the skull is an important cause of mental retardation. This premature closure of the sutures before the age of three years causes damage to the brain because the nervous system is growing in volume rapidly early in life, and in this case, its growth is impeded by a rigid non-yielding skull. Later in the course of the disease (usually after three years of age) the intracranial pressure may increase resulting in headaches and loss of vision. The diagnosis of this anomaly is made by finding an abnormally shaped head, associated bone deformities of the spine, face or extremities, x-ray evidence of premature closure of the sutures, mental retardation, or/and signs of increased intracranial pressure.

Several operations have been devised to allow for continued expansion of the skull in these patients. If such operations are to be of benefit in preventing continued mental retardation they must be performed early in the course of the anomaly in order that severe irreparable damage is not sustained by the brain. Maximum benefit to the patient may be expected if an operation is performed before the age of six months. Results following operation have previously not been entirely successful due to rapid regrowth of bone following a craniectomy. However, better results may be expected with the use of a new technique in which tantalum foil is interposed between the bone edges of the craniectomy defect.

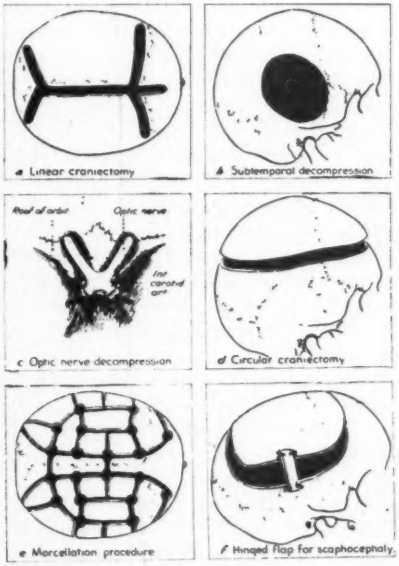


Fig. 1. Types of operations which have been used for premature closure of the cranial sutures—Type a is advised for infants and type b and c for older children and adults.

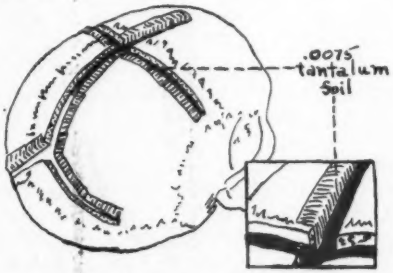


Fig. 2. Method of using tantalum foil to prevent regeneration of bone following linear craniectomy.

The Detection of Injuries About the Ankle

(Graduate Course)

Opening Discussion

THE accurate diagnosis of fractures about the ankle joint is far more difficult than is generally believed and a number of such fractures are overlooked in daily practice. Why are these fractures overlooked and what can be done to remedy the situation? A number of roentgenologists were circularized and, from their replies, it seems that the factors responsible include: 1. Insufficiently detailed physical examination; 2. Inadequate planning of the x-ray examinations; 3. Poor quality of films from the technical photographic standpoint; 4. Inaccurate interpretation of the films.

The obviously ideal solution mentioned in practically every reply is to get radiological consultation in all such cases. This is undoubtedly good advice and, to those to whom such service is readily available, it cannot be recommended too highly. However, where this is not practicable, it is not amiss to analyze these factors with view to correcting them.

Physical Examination

There is almost no excuse for an inadequate physical examination, yet in the rather hectic life of many practitioners details may be omitted at times. Many of the better radiologists examine the part to be x-rayed prior to making the required exposures and, while the clinician who operates an x-ray machine may not be able to compete with him in the making and interpretation of films, he should be far more competent at performing a physical examination.

Fractures produced by direct blows differ considerably from those brought about by twists or leverage. With care, points of tenderness can be localized to an area only a centimeter or so in diameter and it is not particularly difficult to determine whether this point is over bony or soft tissue or whether it is in the tibia, fibula, or tarsal bones. With a little experience gentle motions of the ankle elicit responses capable of interpretation as pain produced by fracture rather than ligamentous strain. Before the first x-ray film is exposed, the good clinician should know with reasonable assurance whether a fracture exists, and if so, in what bone. *A good clinical examination may be of far more value than a mediocre radiological examination.*

X-Ray Examinations

When ones knowledge of x-ray technic has been acquired from the company's representative and the pamphlet that came along with the machine, one is inclined to make exposures by set technics, to neglect to utilize his knowledge of anatomy and to ignore the information he has gained clinically. Where the presence of a fracture and its location are obvious clinically, simple antero-posterior and lateral views centered over the area should serve to confirm the diagnosis and to povide the information necessary for proper management.

If the presence of a fracture is questionable, an oblique view in addition to the usual antero-posterior and lateral views may reveal a fracture not otherwise visible. At no time should an opinion be given on one view alone.

Whee localized tenderness is found over the calcaneus or talus, special technics must be employed, such as a sagittal view of the calcaneus or an oblique of the talus.

Avulsion fractures of the base of the 5th metatarsal may result from a twisting injury that would ordinarily lead one to suspect a malleolar fracture; therefore it is wise to include this area where the mechanism has been of this type and the tenderness is rather diffuse or localized to the area of the base of the 5th metatarsal. The frequent association of fractures of the upper end of the fibula with fractures of the distal shaft of the tibia should always be borne in mind and films made to show this region.

The most commonly overlooked serious injury about the ankle joint is tibiofibular diastasis. Failure to recognize this complication of both fractures and sprains may result in a permanent disability that could have been prevented by early, adequate treatment. Comparable antero-posterior views of both

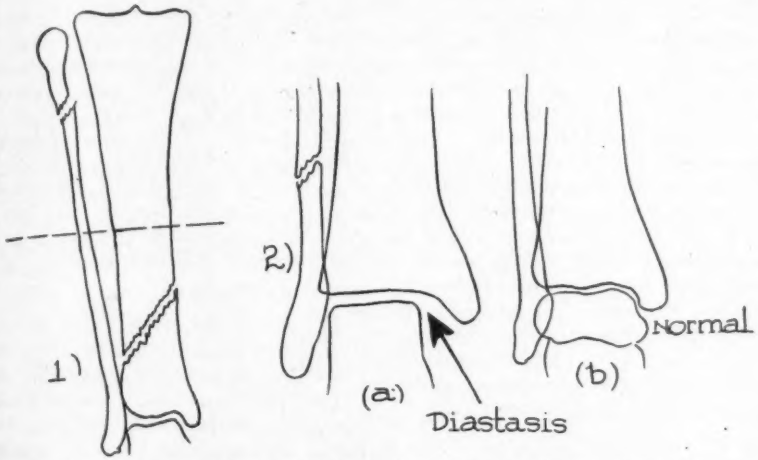


Fig. 1. Fractures of the distal shaft of the tibia are often associated with fractures of the upper (proximal) portion of the fibula. *Use large enough films to visualize the entire lower leg.*

Fig. 2. Separation of the tibio-fibular diastasis is the most commonly overooked serious injury about the ankle joint. It is more easily recognized if anteroposterior films are taken of both the injured and the normal ankles.

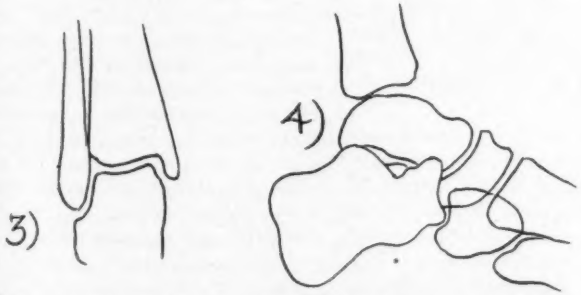


Fig. 3. Normal bony arrangement of the ankle in the anteroposterior view. Fig. 4. Normal bony arrangement of the ankle, as seen in lateral view.

ankles, make recognition of this rather elusive condition easier. When there is doubt, fluroscopic examination during ankle motion may be helpful. (Fig. 2.) With a thorough knowledge of the possibilities to be looked for and an adequate physical examination, the x-ray examination can be so planned that few if any fractures about the ankle joint will be overlooked.

Quality of Films

The most carefully planned exposures are of little value if the photographic quality of the films obtained is so poor that the bony structure cannot be seen in detail. The best solution is to obtain the services of a well trained technician. If this is impracticable, the doctor who operates an x-ray machine must give a great deal of attention to such minor seeming matters as the temperature and age of his solutions, timing in the developer and so on. Probably most important is for him to be aware of what good quality x-ray photographs look like and this he can do by visiting the x-ray departments of almost any of the larger hospitals and clinics.

X-Ray Interpretations

Anyone can see an obvious fracture with displacement. There is no short cut to recognizing the obscure pathology on an x-ray film. First, the interpreter must know the normal anatomy as it appears on an x-ray. He must know of the existence of accessory ossicles and should be aware of the time of closure of the various epiphyses. This information is available in any standard anatomy textbook.

Failure to recognize epiphyseal separations that result in alteration of bone growth has led to law suits that could have been avoided had the possibility been noted and pointed out to the parents at the time of the injury.

"March" or "fatigue" fractures, which may occur in the tibia, fibula, and calcaneus, as well as the metatarsals, sometimes require repeat examinations after a lapse of ten days or so before roentgen diagnosis can be established as it is only after some bony absorption has taken place at the fracture line that they become visible on the roentgenogram.

Tibio-fibular diastasis can be diagnosed on finding that the space between the talus and the medial malleolus is greater than can be accounted for by the fracture, even though there is still overlap of the shadows of the tibia and fibula. With the normal ankle for comparison, this is not too difficult an interpretation and is a very important one to make. (Fig. 2.)

The number of fractures about the ankle joint overlooked in daily practice can be greatly reduced with the observation of a few simple rules and a great deal of attention to details.—S. B. THOMPSON, M.D., Baltimore, Md.

DISCUSSION

In view of the rather smug attitude that some radiologists evidence, to the effect that only a radiologist could detect difficult fractures, it might amuse you to know that most orthopods feel that a radiologist is not to be trusted, either, in the selection of exposures to make, or in the interpretation of films, in difficult or unusual fractures. How narrow minded we specialists do become.—[Orthopedist's comment.]

DISCUSSION

Do you have information that the general practitioner and general surgeon are overlooking fractures of the extremities? If so, then, I would say that in addition to the reasons you give, there is another and that is the general practitioner and surgeon are not adequately trained in the interpretation of x-rays. Many believe that anyone can see a fracture. Obvious ones, yes, but it is the unusual, the obscure or the incomplete fracture that is missed.

Most general practitioners and general surgeons are too busy to do their

x-ray work satisfactorily. The remedy to the situation would be for the general practitioner and the surgeon to send his traumatic cases, however trivial the injury, to a trained roentgenologist who is equipped and trained to render an accurate opinion. If none are available then he should hire a good technician who makes good films, using adequate views.—W. K., M.D., Maryland.

DISCUSSION

In answer to your letter regarding x-ray examinations of the ankle, I feel that antero-posterior, lateral and oblique projections of the ankle should give a correct diagnostic picture. I feel, however, that many films of this kind are of such poor technical quality that they do not give a true picture of the pathology. This is due to an incorrect exposure of the film and faulty development, often because the developing solution is not maintained at the right temperature. I do not feel that repeat x-rays should be necessary to find a fracture if the original films are properly made.—Howard P. Doub, M.D., Detroit, Mich.

DISCUSSION

In reply to your recent letter concerning the missing of fractures about the ankle joint, I would make the following several suggestions:

1. Take films of *adequate size.* At least the distalmost 6 or 8 inches of the fibular shaft should be included; otherwise only the tibia fracture just above the ankle will be shown on the films and the fibula fracture will be missed. (If the tibia fracture is spiral type one, located several inches above the ankle, and the plane of the fracture is nearly vertical as sometimes occurs, the fracture in the fibula when present, is likely to be in proximal shaft; hence the entire fibula should be examined in this type of tibia fracture.)

2. The lateral film of a routine ankle study should always include the proximal metatarsal bones, and particular study of the films should be made for the possibility of a transverse fracture of the proximal end of the little toe metatarsal bone which sometimes occurs without any malleoli fractures when the foot is sharply inverted.

3. Observe carefully the bone trabeculations in the os calcis in the routine lateral films, and if there is any suspicion of interruption of these trabeculations, vertical views of the heel should be taken, since not infrequently an "ankle fracture" proves to be actually a fracture of the os calcis.—J. Edwin Habbe, M.D., Milwaukee, Wis.

DISCUSSION

The general practitioner or surgeon should *examine* the injured ankle before making any x-rays. *Proper clinical examination* followed by intelligent roentgen examination will permit detection of virtually all significant ankle fractures.

The x-ray examination should be suitably planned:

(a) Routine, obvious fractures: anterior, posterior and lateral views.

(b) Questionable fractures: anterior, posterior, lateral and oblique views.

(c) Unusual injuries: additional views beyond those mentioned under (b) for example, sagittal of os calcis; oblique of talus; etc.

The examiner should know how to interpret the films correctly and without excessive bias. He should have radiological consultation (not film reading) whenever possible.—Henry L. Garland, M.D., San Francisco, Calif.

DISCUSSION

I believe the roentgenologist can always make a fracture diagnosis from one place, therefore, errors arise from his eyesight or ignorance.

Trouble arises from errors in exposure times, voltages, indirect rays, or lack of understanding of development. In other words, if the physician does

not know what he is doing, more films will not help.

I do not believe in delayed appearance of fractures. Such a diagnosis is made when trying to get rid of a patient. A patient will ask questions after he knows a film is developed. If the roentgenologist fails to truthfully answer, it makes him look evasive. Therefore, he tells the patient that the plate was exposed when dry, that it is now in the wet state and can not be read until it is dry again as the fracture might not show. Therefore, he must get his answer from the referring physician.—WILLIAM J. FRANCIS, M.D., Harbormill, East Rockaway, N. Y.

DISCUSSION

The general practitioner should not be taking x-rays. If he would send his cases to a qualified radiologist, and spend his time on doing what he is qualified to do, this problem would not arise.—E.M., Calif.

DISCUSSION

Key and Conwell believe that any fracture around the ankle may be complicated by diastasis (a separation of two bones normally attached to each other without the existence of a true joint, as in the separation of the epiphysis of a bone). Another complication may be a widening of the mortise which holds the astragalus (talus), which can be recognized on an anteroposterior x-ray. The latter should be treated by firmly pressing the malleoli together before applying a snug cast as the tibia and fibula will firmly heal together by the time the fracture has healed.

It would seem advisable to x-ray the normal ankle in both anteroposterior and lateral views for comparison with the injured ankle. In case of doubt, x-ray the injured ankle in oblique views and the foot.—R. L. GORRELL, M.D., Clarion, Iowa.

SUMMARY

Factors involved in the overlooking of fractures around the ankle by the general practitioner.

1. Poor Physical Examinations
2. Poorly planned x-ray examinations. Insufficient views and angles.
3. Poor quality of films, photographically
4. Poor knowledge of x-ray appearance of normal and abnormal anatomy.
5. Incomplete knowledge of the possibilities to be sought for.

Rural Physicians

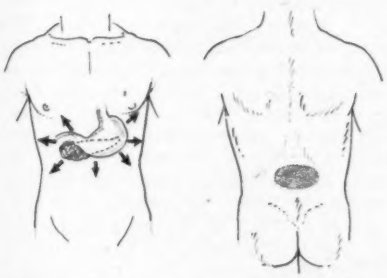
It is the rural areas where the deficiency of physicians is greatest . . . There are comparatively few candidates or applicants for study of medicine from rural areas. It is not likely that young men who have been reared in cities are going to practice medicine in rural areas even if proper facilities are provided for them. One is more apt to get replacements for physicians in country areas from among the students who come from those areas.

Boys and girls, in rural areas do not have frequent contact with physicians and consequently have little knowledge of the advantages of a medical career.

The men who are practicing medicine at present in rural areas have an average age of 60 years. It isn't the general ratio of physicians to population that is important, rather it is the age of those physicians, their ability to render a full measure of service and the availability of qualified men for their eventual replacement.—C. A. BACHMEYER, M.D., in *J.A.M.A.*, Apr. 12, 1947.

Problems in Practice

Where Does a Peptic Ulcer Hurt?



Question: A young man of 23 complains of pain in the right upper quadrant, which comes back repeatedly and yet there is no history of gallbladder trouble and he has had dye x-rays which showed a normal gallbladder. Can a peptic ulcer cause pain elsewhere than in the middle of the epigastrium? M.D., Danville, Illinois.

Answer: Several sketches are appended, which are adapted from those of A. Rivers, Department of Medicine, Mayo Clinic, Rochester, Minnesota, which indicate the various radiations of peptic ulcer pain anteriorly and in the back. The pain of a perforating ulcer may radiate anywhere the arrows indicate. Is the pain relieved, or was it relieved by soda, milk or food? If so, this would lend evidence for a peptic ulcer. Look for occult blood in the stools.

Treatment of Boils in Ear Canal (Otitis Externa Suppurativa)

Question: What is the best treatment for patients who are suffering from infections in the ear canal (external auditory meatus)? In some patients, localized small boils may appear; in others, there is a swelling throughout the canal without any localization. External heat usually affords little relief and often I must use narcotics to relieve the severe pain. How can I be sure that a mastoiditis is not present? (The nearest ear, nose and throat specialist is over a hundred miles away). —M.D., Nebraska.

Answer:

Diagnosis: If the hearing in the affected ear is not impaired, there is no infection in the middle ear or mastoid bone (Lederer's test, by F. L. Lederer, M.D., Chief, Otolaryngology, University of Illinois School of Medicine, 1853 West Polk Street, Chicago, Illinois).

In furunculososis of the canal, there is tenderness over the canal or on moving the auricle. Middle ear or mastoid tenderness, on the contrary, is deep.

Direct examination of otitis externa reveals a red pimple or a swelling of the external canal; in otitis media, the inflamed drum can usually be seen, even if there is some swelling of the canal wall.

Treatment: Narrow gauze strips, ⅛ or ¼ inch wide, are soaked in 1. aluminum acetate solution 8 percent, 2. cresatin (Sharp and Dohme metacresylacetate solution), 3. alcohol or 4. phenol 1 percent in glycerin. Such strips are inserted loosely with a small packing forceps and changed daily. When pus forms it may be released by a small, careful incision (care being taken not to wound uninfected areas on the wall of the canal). Boric acid and alcohol solution is used frequently to prevent recurrence of the infection. Glycosuria, anemia and other systemic causes should be ruled out by a thorough examination.

The Tobacco Habit

Question:

Is there any way of breaking the smoking habit?

Answer:

I do not know of anything specific or unique in the treatment of the tobacco habit. The use of lobeline sulfate, as was done especially a few years back, has no special merits.

It is at present pretty much a matter of psychological measures which will divert the users attention at a time when he is cutting down on the amount of tobacco used. The extent of inhalation governs the absorbed dosage as much as the amount of tobacco used.—ROBERT P. WALTON, M.D., Charleston, S.C.

Discussion: The best known antagonist consists of the application of a 1 per cent solution of silver nitrate to the postpharynx or the use of a more dilute solution (a 0.5 per cent) as a mouth wash after meals. This results in a highly disagreeable taste whenever the subject attempts to smoke, which in that way tends to overcome the desire.

"Moral suasion" or educating the subject regarding the reason for discontinuing the habit, especially with regard to the progress of already existing symptoms, such as extrasystoles and amblyopia, is usually sufficient. Many smokers cease to usè tobacco for shorter or longer periods out of a whim, to test their self control or for economic, esthetic, hygienic or other reasons. A large proportion of them, however, resume the habit unless they are convinced of its ill effects on their own person.—A.M.A.

Persistent Pelvic Pain

Question: A woman of 29 has had recurrent pelvic pain not relieved by three operations performed by very competent, well trained surgeons. The uterus has been suspended, the appendix removed, the ureters dilated and an ovarian cyst removed. There is no evidence of psychosomatic disorder. Thorough examination at a famous clinic has disclosed no abnormality. What can be done for her? M.D., Saginaw, Michigan.

Answer: Assuming that the pain is truly pelvic, and that observation and repeated examinations have ruled out both organic and psychic abnormalities a pelvic sympathectomy (presacral neurectomy) may be indicated. In a person of average weight the procedure is not dangerous nor difficult, an incision being made over the peritoneum in the sacral area and all the presacral fibrous tissue, including nerve filaments, removed. Editorial Staff.

Answer: An indication for pelvic sympathectomy is persistant lower abdominal pain unrelieved by repeated lapatomies. In such women, even if the cause of the pain is not removed, pelvic sympathectomy will be followed by dramatic relief of pain.

Pelvic sympathectomy will almost completely relieve the intractable pain in about half of the cases of Group III and Group IV carcinoma of the cervix, and it will partially relieve many more. The operation (Greenhill and Schmitz; *J.A.M.A.*, 101, 26, 1933) should be performed as a prophylactic measure in all cases in which a laparotomy is done for carcinoma of the cervix. Should recurrence of the cancer follow operation there will be considerably less pain than if the sympathectomy had not been performed.

Pelvic sympathectomy is also indicated in selected cases of primary dysmenorrhea in which all medication, including hormones and minor surgical measures have been tried without success. The results in dysmenorrhea are excellent. (Greenhill; *Amer. Med.*, 40, 290. 1940).

Finally, pelivc sympathectomy is useful in cases of endometriosis in which it is desirable not to remove the ovaries. The operation relieves pain and also appears to have some beneficial effect on the endometriosis, probably due to the vasodilatation which follows the procedure.—J. P. GREENHILL, *British Med. Jn.*, 4534, 859-862, Nov. 29, 1947.

Streptomycin for Diarrhea

Question: Is Streptomycin of value for severe diarrhea?
M.G., Illinois.

Answer: There are several reports in the literature that would indicate that oral Streptomycin is of considerable benefit in the management of type specific dysenteries. It has been found effective in doses of 1 to 4 gms. daily for 8 days in cases of diarrhea due to Shigella sonnei and Shigella flexneri. *Dysentery bacilli were noted to disappear from the stools with clinical improvement in nearly every case.*

References:

1. Pulaski, E. J. and Amsbacher, W. H.: Streptomycin in Intestinal Infections, Bull. U.S. Army M. Dept., 6:750-760, December 1946.
2. Murray, R. Paine, T. F. and Finland, M.: Streptomycin, New Eng. J. of Med., 236:701-712 and 748-760 (May 8th and May 15th) 1947.

Early clinical reports would indicate that Streptomycin by mouth is not beneficial in Salmonella infections (Ref. 2). The value of Streptomycin in infectious diarrhea is questionable and there is not sufficient evidence as yet to state whether or not it is beneficial.

The Children's Hospital of Washington, D.C. at the present time is evaluating the use of Streptomycin by mouth in infectious and non-specific diarrheas of infants and children under the sponsorship of the Research Grants Division of the United States Public Health Service. This 12 month study which was started on July 1st is under way at the present time and no conclusions can be drawn on the basis of our present evidence as to the value of Streptomycin in the management of these cases. It seems pretty clear that there is considerable inhibitory effect o nthe bacterial flora of the intestinal tract but whether or not the clinical course of diarrhea will be altered remains to be seen.—FREDERIC B. BURKE, M.D., Washington, D.C.

Treatment of Persistent Thrombophlebitis

Question: I have a fat woman patient of 40 who suffered a thrombophlebitis following removal of a large ovarian cyst. There is persistant edema and pain, 8 months following the operation. She has used elastic bandages with only temporary relief. What other treatment may be employed? M.D., Fort Dodge, Iowa.

Answer: Lumbar sympathetic blocks or caudal blocks will relieve pain and increase circulation. A simpler method of therapy is the intravenous injection of tetra-ethyl-ammonium daily in doses of 1 to 5 cc. This drug is produced by Parke, Davis and Company of Detroit, under the name of "Etamon". It is not as yet commercially available, but may be obtained by writing direct to the medical service division and asking for an experimental supply. The leg should be supported by an *elastic* (washed frequently) bandage which is reapplied each morning before getting out of bed.

Paroxysmal Tachycardia

Question:

A young woman has had repeated attacks of paroxysmal tachycardia, without signs, symptoms or x-ray findings of a heart lesion, over a period of 6 years. What simple therapy will terminate these attacks? Pressure over the carotid body is so painful that she cannot stand it, as is pressure over the eyeballs.—M.D., Joplin, Mo.

Answer:

Often the patient learns that a trick will terminate the attack such as sudden bending over, attempting to have a bowel movement or to expel gas, gagging by putting a spoon or finger down the throat, sudden pressure with the palm of the hand upon the abdomen, or resting quietly is effective if the attack occurs during activity. An old fashioned remedy is syrup of ipecac in doses of two teaspoons, which causes repeated vomiting with usual relief. Quinidine is effective but often causes a headache.

George Crile: An Autobiography

Edited, With Sidelights, by Grace Crile.—Two Volumes.—J. B. Lippincott Company. 1947. $10.00.

Two beautiful volumes contain the story of the most dynamic mind of the twentieth century surgery. Crile went far beyond the technical and the technic of usual surgical practice into the realms of biology, physics, the electric potentiality of living tissue, the forces that give life its drive, exquisite minute study of the red blood cell, investigation of the adrenals and effects of their denervation, and into many other fields.

His home life and personal experiences are well depicted. His wife adds many notes that round out the final picture of the "Chief."

Many of Crile's ideas have been accepted and are now used, not only in surgery but in aviation (the pneumatic suit) and in other fields.

His work with various associations, notably that of the American College of Surgeons, reveals another facet of his career.

The world is the better for his having lived and worked.

A Primer of Cardiology

By George E. Burch, M.D., Associate Professor of Medicine, Tulane University School of Medicine, New Orleans and Paul Reaser, M.D., Instructor in Medicine at Tulane.—Lea & Febiger. 1847. $4.50.

A text for the student and physician who wish to know cardiology fundamentally. Illustrations correlate sound records, electrocardiograms, phlebograms and pulse tracings. The more common clinical conditions have been presented in more detail, with special emphasis upon physiology.

Surgical Disorders of the Chest

By J. K. Donaldson, M.D., Associate Professor of Surgery and in Charge of Thoracic Surgery, University of Arkansas Medical School, Little Rock Ark.—Lea & Febiger. 1947. $8.50.

A practical text on the diagnosis and management of those conditions of the chest requiring surgical treatment. It has been revised to date in this second edition.

Pharmacology, Therapeutics and Prescription Writing

By Walter A. Bastedo, M.D., F.A.C.P. Fifth Edition—W. G. Saunders. 1947. $8.50.

This volume brings up to date the many pure principles rather than the crude drugs, which were formerly all that were available. Newer remedies include aminoacids, blood fractions, coagulant and anticoagulant drugs, curare, demerol and many others. The text contains also much valuable clinical information.

The Foot and Ankle

By Philip Lewin, M.D., F.A.C.S., Professor of Bone and Joint Surgery, Northwestern Universary Medical School, etc.—Lea & Febiger. 1947. $11.00.

A well classified text on diseases and injuries of the bones and soft tissues of the foot and ankle. Additional material has been added to this *third edition* concerning compoud fractures, crushing wounds and osteomylitis. The tone is practical, clear and detailed. The illustrations are well done.

Blood Deriviatives and Substitutes

By Charles S. White, M.D., Chief of Surgery, Doctors Hospital, Washington, D.C. and J. J. Weinstein, M.D., Associate in Surgery, George Washington University School of Medicine—Williams and Wilkins. 1947. $7.50.

Both laboratory and clinical aspects of the use of blood, plasma and plasma substitutes are well presented, together with an extended discussion on the prevention and treatment of shock. The book is of value to the technician who must prepare the material and to the clinician who wishes to know how the best to use it.

Immunology

By Noble P. Sherwood, M.D., Professor of Bacteriology, University of Kansas, Lawrence.—C. V. Mosby. 1946. $6.50.

For medical and allied biologic students, this text reviews the fields of immunity, infectious agents, inflammation, allergic reactions and colloids. It is clearly and simply written.

A Textbook of Clinical Neurology

By I. S. Wechsler, M.D., Professor of Neurology, Columbia University, N. Y. C.—W. B. Saunders. 1947. $8.50.

The author comments truly that psychosomatic medicine is not scientific enough, that one does not need to know the brain to understand its functions and abnormalities. This sixth edition is a well done summary of present day clinical neurology.

Unipolar Lead Electrocardiography

By Emanual Goldberger, M.D., Adjunct Physician, Montefiore Hospital, N.Y.C.—Lea & Febiger. 1947. $4.00.

The author presents each abnormality in terms of the three standard leads, the three "augmented" unipolar extremity leads and the six unipolar precordial leads. The unipolar leads aid in the diagnosis of pulmonary embolism and posterior infarction, of small myocardial infarct, right ventricular, ventricular hyperthrophy, the interpretation of tracings when standard leads appear normal and for other conditions.

MEDICAL NEWS

Oral Nebulizer: Pencillin Aerosol (Premo)

Penicillin Nebulizer: Oral and Nasal

The Premo Nebulizer embodies a principle which allows for hand nebulation of 50,000 units of Penicillin solution (½ cc) in 2 to 3 minutes by the use of Penicillin Nebutabs tablets containing crystalline Penicillin G. Sodium. Nebutabs dissolve rapidly and completely and are stable at room temperature for three years.

Such Pencillin inhalation therapy is especially good in bronchopulmonary infections and sinus infections.

The Premo Pharmaceutical Labs. of New York, New York, make this type of therapy conveniently available.

Packaged Radiochemical Compounds

A substantial contribution to more extensive use of radioisitopes in research is expected to be achieved in a new cooperative venture between the Atomic Energy Commission and private industry. The Atomic Energy Commission has enlisted the services of Traceriab, Inc., 55 Oliver Street, Boston, Massachusetts to manufacture and stock a number of compounds tagged with carbon-14, for which there is a widespread need in research problems.

This new program should have several beneficial results. First, a variety of tagged compounds will be made available to many research groups who otherwise would not be in a position to synthesize them. Second, it is hoped that the synthesis of these compounds on a relatively large scale will result in a substantially lower cost than if they were made for a single customer. In most instances except

(Continued on page 16)

"A NATURAL"
...has *everything*

A *Natural* in Salicylate Therapy
ELIXIR ALYSINE

A Distinctive Combination of Merrell's Natural Salicylate and Alkaline Salts

MERRELL'S NATURAL SALICYLATES
PREPARED SOLELY FROM OIL OF SWEET BIRCH

Elixir Alysine, containing approximately 0.3 Gm. (5 grs.) natural sodium salicylate and 0.6 Gm. (10 grs.) alkaline salts per teaspoonful, in 4-oz., pint and gallon bottles.

Also available as

Alysine Powder, containing approximately 0.6 Gm. (10 grs.) natural salicylates and 1.2 Gm. (20 grs.) alkaline salts per level teaspoonful, in 1-oz., 4-oz., and 1-lb. bottles.

In the symptomatic treatment of the common cold, influenza, la grippe, tonsillitis, rheumatic fever and arthritis, Elixir Alysine is the *natural* choice.

Containing *natural* salicylates prepared solely from oil of sweet birch, together with selected alkaline salts, Alysine provides fast, intensive salicylization with a minimum of gastric irritation or systemic acidotic tendency.

In a palatable, aromatized solution, Elixir Alysine is immediately assimilable for quick therapeutic response and readily adaptable to fractional dosages.

Used adjunctively with the sulfas, Alysine provides an alkaline (tolerance) factor, and at the same time helps to relieve muscular aches and pains.

Trademark "Alysine" Reg. U. S. Pat. Off.

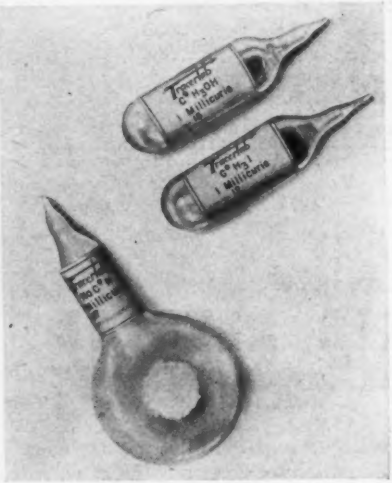
MERRELL
1828

THE WM. S. MERRELL COMPANY · CINCINNATI, U.S.A.

MEDICAL NEWS

(Continued from page 14)

for materials, the cost of synthesizing ten millicuries of a substance is not greater than the cost of synthesizing one millicurie. Third, it is believed that considerable time will be saved by having such compounds available for immediate shipment upon receipt of an order approved by the Atomic Energy Commission.



The procedure for obtaining synthesized radiochemical compounds is fairly simple. It is suggested that Tracerlab be contacted first for information. Then the customer should apply for the compound desired by submitting Form 313, "Application for Radioisotope Procurement," to the Isotopes Division, U. S. Atomic Energy Commission. P.O. Box E. Oak Ridge, Tennessee, for the required number of millicuries of carbon-14 incorporated into the desired compound, stipulating that it will be purchased from Tracerlab. After review and approval of the application, the Isotopes Division will return two copies of "Authorization for Radioisotopes Procurement," A.E.C. Form 374, to the customer. Order and shipment is then handled in the usual way.

Pharmacopoeias of the World

The Committee of Experts on the Unification of Pharmacopoeias of the World Health Organization of the United Nations, placed 244 items on its Primary List of medicinal substances. These they believe of sufficient importance for immediate attention and inclusion in a book of "Standards Recommended for Adoption by the Pharmacopoeias of the World." This Primary List will be further submitted for review to authoritative medical groups in a number of countries affiliated with the World Health Organization.

..double defense in simple diarrheas

"TOMECTIN" offers a combination of nickel pectinate and fresh dried tomato pulp—two therapeutic agents which have proved of value in the treatment of various diarrheal conditions, including bacillary dysentery.

WHY NICKLE PECTINATE? ...because its detoxifying and bacteriostatic effects as well as antihemorrhagic properties have proved clinically valuable in various diarrheal conditions.[1]

WHY FRESH DRIED TOMATO PULP? ...because it has been used successfully in the management of diarrhea from simple or nonorganic cause, relief being obtained in certain cases within 24 hours after treatment.[2]

WHY A COMBINATION OF NICKEL PECTINATE AND FRESH DRIED TOMATO PULP? ...because these substances have proved effective in many instances where other antidiarrheal medication had failed.[1,2]

DOSAGE: *Children and Adults:* 1 to 2 heaping tablespoonfuls of "Tomectin" (6.0 to 12.0 Gm.) in water every 2 to 3 hours or after each bowel movement until recovery.
Infants: 1 to 3 heaping teaspoonfuls every 3 hours or at each feeding. "Tomectin" may be readily dispersed in hot milk without causing the milk to curdle and, in this manner, may be incorporated in the infant's formula.

[1] Block, L. H., Tarnowski, A., and Green, B. L.: Am. J. Digest. Dis. *6*:96 (Apr.) 1939
[2] Morrison, L. M.: Am. J. Digest. Dis. *13*:196 (June) 1946

"TOMECTIN"
nickel pectinate compound

Ayerst

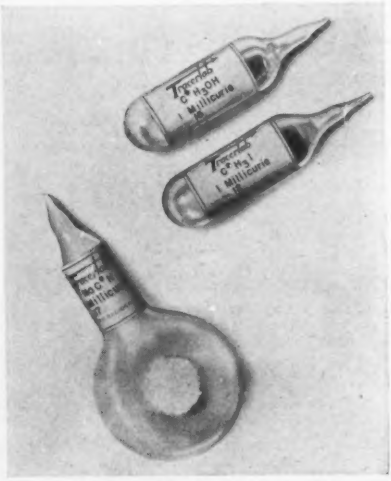
Ayerst, McKenna & Harrison Limited
22 East 40th Street, New York 16, N. Y.

4821

MEDICAL NEWS

(*Continued from page 14*)

for materials, the cost of synthesizing ten millicuries of a substance is not greater than the cost of synthesizing one millicurie. Third, it is believed that considerable time will be saved by having such compounds available for immediate shipment upon receipt of an order approved by the Atomic Energy Commission.



The procedure for obtaining synthesized radiochemical compounds is fairly simple. It is suggested that Tracerlab be contacted first for information. Then the customer should apply for the compound desired by submitting Form 313, "Application for Radioisotope Procurement," to the Isotopes Division, U. S. Atomic Energy Commission, P.O. Box E, Oak Ridge, Tennessee, for the required number of millicuries of carbon-14 incorporated into the desired compound, stipulating that it will be purchased from Tracerlab. After review and approval of the application, the Isotopes Division will return two copies of "Authorization for Radioisotopes Procurement," A.E.C. Form 374, to the customer. Order and shipment is then handled in the usual way.

Pharmacopoeias of the World

The Committee of Experts on the Unification of Pharmacopoeias of the World Health Organization of the United Nations, placed 244 items on its Primary List of medicinal substances. These they believe of sufficient importance for immediate attention and inclusion in a book of "Standards Recommended for Adoption by the Pharmacopoeias of the World." This Primary List will be further submitted for review to authoritative medical groups in a number of countries affiliated with the World Health Organization.

DIATUSSIN

Bischoff

Wracking, frequent cough can lead to such grave complications as bronchopneumonia and hemorrhage. In the elderly, especially, paroxysms of coughing may be so severe a burden as to delay or prevent recovery. DIATUSSIN, however, can quickly control dangerous, excessive coughing.

Non-narcotic, DIATUSSIN-Bischoff modifies a cough without destroying the valuable cough reflex. Rather, DIATUSSIN reduces cough-frequency while enhancing productivity. Obviating the dangers of oversedation, it is a safe antitussive even for the elderly patient and the young child. Palatable and well-tolerated gastrically.

Safe • Non-narcotic • Pleasant • Quickly effective

DIATUSSIN-Bischoff concentrated extract, 2 to 7 drops daily

DIATUSSIN Syrup each teaspoonful contains 2 drops of concentrated extract

DIATUSSIN (extract of drosera and extract of thyme, equal parts.)	5%	ALCOHOL Aqueous dextrose base.	5%

Clinical supply of DIATUSSIN together with literature, gladly sent on request of physician.

ERNST BISCHOFF COMPANY, INC • IVORYTON, CONN.